

An exceedingly important discussion of sugar-cane root disease by Earle and Matz appeared in the *Journal of the Department of Agriculture of Porto Rico* for January, 1920. A summary of the situation in Porto Rico is given by Earle, as follows:

Root disease as here understood is a complex including phases often known as Root Rot, Wither Tip, Top Rot and Rind Disease. These phenomena are caused by a number of facultative parasites, none of which attack actively growing vigorous tissues. There is also a heretofore unknown true parasite inhabiting the vascular bundles. *Rhizoctonia* and *Pythium* are the usual root-killing agents rather than *Marasmius* and *Himantia*.

Cane varieties differ greatly in their resistance or susceptibility to Root Disease. The Otaheite or Cana Blanca is very susceptible. North Indian canes like Kavangire and those with part North Indian parentage are very resistant or practically immune.

Remedial or preventive measures include

- A. The planting of resistant varieties.
- B. Better cultural methods to overcome facultative parasites.
- C. Proper seed selection and handling.

The parasite inhabiting the vascular bundles is described by Matz as *Plasmodiophora vascularum*. It is said to differ from *P. brassicae* in having larger spores, in not forming galls, and in inhabiting the vascular system of its host, plugging up the conducting vessels and greatly interfering with their action.

A NEW BOLETE FROM PORTO RICO

Gyroporus Earlei sp. nov.

Pileus broadly convex, solitary, 8-10 cm. broad; surface slightly viscid when young, becoming dry at maturity, subglabrous, fulvous; margin thin, concolorous; context fleshy, firm, yellowish-white, unchanging, taste mild, but slightly mawkish; tubes sinuate-depressed, minute, ochraceous at maturity, not stuffed when young; spores ovoid to ellipsoid. smooth, honey-yellow under the microscope, with a very large nucleus, $7-8 \times 4-5 \mu$; stipe somewhat enlarged above and below, bright-yellow at the apex, otherwise very dark brown, almost black, glabrous. solid, firm, 5 cm. long, 1.5-2 cm. thick.

Type collected in sandy land beside a ditch in an old grapefruit grove,—where the trees were dying from root disease,—near Manati, Porto Rico, October 29, 1920, *F. S. Earle*. The description is largely drawn from field-notes accompanying the collec-

tion. Boletes are exceedingly rare in tropical regions. This is probably the first specimen of the group that has been found in Porto Rico; and it is interesting to note that it belongs to the small genus having pale, ellipsoid spores.

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Tree Surgery is the subject of Farmers' Bulletin 1173, by J. Franklin Collins, published in September, 1920. This bulletin is intended primarily as a guide for those who desire to take care of their own trees or to superintend such work. It outlines some of the better methods of treating injuries, removing dead or diseased limbs, and repairing decayed spots in the trunk or limbs.

A badly diseased or injured tree should be removed and replaced by a healthy one unless there is some very special reason for trying to preserve the tree. This applies particularly to an old tree that has been in poor condition or in poor soil for some years. Such a tree rarely recovers completely from the shock of extensive or elaborate repair work on the trunk; in fact, it often deteriorates more rapidly thereafter. Two axioms of tree-repair work (tree surgery) that should be borne in mind constantly are (1) that prompt treatment of freshly made wounds is the surest and most economical method of preventing disease or decay in the future and (2) that all wounds made in tree-surgery work should be cleaned, sterilized, and protected from infection just as thoroughly as in the case of animal surgery and for exactly the same reasons.

At present tree-repair work has not received the recognition and approval from tree owners that it deserves. This may be due at times to unfavorable experiences with dishonest and ignorant tree surgeons, at other times to the reluctance of the owners to spend much money in preserving their trees, or from their ignorance of the benefits that may result when tree-repair work is properly done. Reliable tree surgeons are doing much in a practical way to educate the public as to the benefits of tree-repair work. Unfortunately, the unscientific or dishonest work of some others still is doing much to offset it.